Left Outer Joins Using Queries

multbr3.p

```
/* multbr3.p - customer order browse outer join */

def query q1 for customer, order.

def browse b1 query q1
   display customer.cust-num name order-num order-date
      with 5 down.

open query q1 for each customer,
                each order outer-join of customer
                     where order-date ge 4/1/93
                       and order-date le 4/30/93.

prompt-for b1.
```

Cust-Num	Name	Order-num	Ordered
1	Lift Line Skiing	185	04/05/9
2	Urpon Frisbee	?	
3	Hoops Croquet Co.	189	04/06/9
4	Go Fishing Ltd	?	
5	Match Point Tennis	?	

Left Outer Joins Using Queries

■ In V8, left outer joins are available on queries. Use the **OUTER-JOIN** keyword in an **OPEN QUERY** statement to create a left outer join.

    ♦ Since the query in **multbr2.p** uses the **OUTER-JOIN** keyword, PROGRESS treats it as a left outer join and will display customer records even if they have no orders in April.

■ If no children exist for the parent, PROGRESS puts a **?** in the first field from the child table

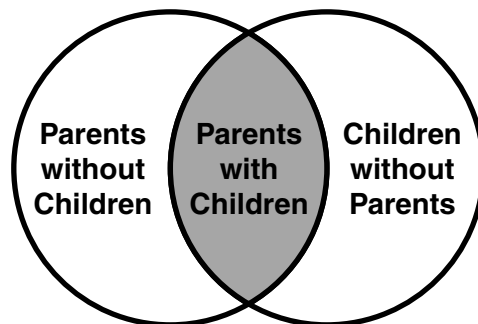■ Figures 5-6 and 5-7 show the difference between inner and left outer joins.
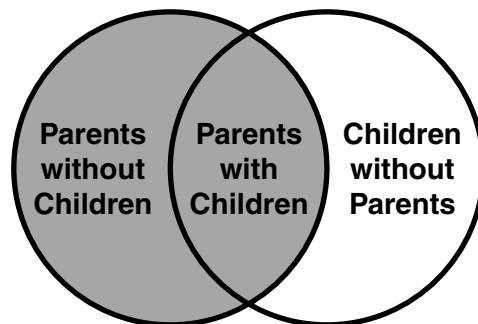
Figure 5-6: Records Selected with an Inner Join

Figure 5-7: Records Selected with a Left Outer Join